



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

application of : March 6, 2002
J. Kaufman et al. : Group Art Unit: Unassigned
Serial No.: 10/034,523 : Examiner: Unknown
Filed: December 28, 2001 : San Jose, California
Attorney Docket No.: ARC920010089US1

Title: SYSTEM AND METHOD FOR HIERARCHICAL SEGMENTATION
WITH LATENT SEMANTIC INDEXING IN SCALE SPACE

**INFORMATION DISCLOSURE STATEMENT
WITHIN THREE MONTHS OF FILING OR BEFORE
MAILING OF FIRST OFFICE ACTION (37 CFR 1.97(b))**

Commissioner for Patents
Washington, DC 20231

Dear Sir:

Pursuant to Section 707.05(b) of the MPEP and 37 CFR 1.97-1.99, a copy is submitted (attached to forms PTO-1449) of prior art which is considered to be pertinent to the invention as claimed in the above-identified application. Highlighting or other markings are not to be considered significant.

It is requested that the Examiner fully consider the art cited, initial the leftmost column of the attached PTO Forms 1449 adjacent to each cited reference, and return a copy of the Forms 1449 for applicant's records. It is further requested that the art be cited on the cover of any patent issuing from the subject application.

The citation of the above references should not be construed as a representation that an exhaustive search has been made, or that other, more pertinent art is not available. Nor does this statement constitute an admission by applicant or applicant's attorney that the information provided is necessarily prior art to applicant's invention. Moreover, applicant reserves the right to establish the patentability of the claimed invention over any of the listed documents should they be applied against the claimed invention.

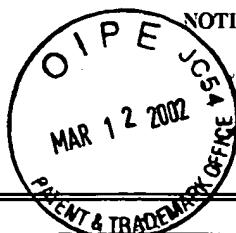
This Information Disclosure Statement is being filed within three months of the filing date of the above-identified application or before the mailing date of the first Office Action on the merits, whichever occurs last.

Respectfully submitted,

J. Kaufman et al.

By Marc D. McSwain
Marc D. McSwain (#44,929)
Agent for Applicants
Phone (408) 927-3364

Attachments



NOTICE OF REFERENCES CITED

SERIAL NO.

10/034,523

GROUP ART
UNIT

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TITLE: SYSTEM AND METHOD FOR HIERARCHICAL
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APPLICANT(S): J. KAUFMAN ET AL.

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U.S. PATENT DOCUMENTS

INIT.	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE

4	6	5	8	3	7	2		04/14/87	Witkin	364	550	05/13/83
4	8	3	9	8	5	3		06/13/89	Deerwester et al.	364	900	09/15/88
5	3	0	1	1	0	9		04/05/94	Landauer et al.	364	419.19	07/17/91
5	5	4	4	3	5	2		08/06/96	Egger	395	600	06/14/93
5	7	9	9	2	7	6		08/25/98	Komissarchik et al.	704	251	11/07/95
5	9	6	3	2	0	5		10/05/99	Sotomayor	345	333	06/14/95
6	0	7	0	1	3	3		05/30/00	Brewster et al.	704	9	07/21/97

FOREIGN PATENT DOCUMENTS

INIT.	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUB-CLASS

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Jean Babaud, Andrew P. Witkin, Michel Baudin, Richard O. Duda, "Uniqueness of the Gaussian Kernel for Scale-Space Filtering", IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. PAMI-8, No. 1, p. 26-33, January 1986.
.	F. Choi, "Advances in domain independent linear text segmentation", Proceedings of NAACL'00, Seattle, USA, April 2000.
.	S. Deerwester, S. Dumais, G. Furnas, T. Landauer, R. Harshman, "Indexing by Latent Semantic Analysis", Journal of the American Society for Information Science, 41, p. 391-407, 1990.
.	M.K. Hughey, M.W. Berry, "Improved query matching using kd trees: a latent semantic indexing enhancement", Information Retrieval (USA), Vol. 2, No. 4, 2000, p. 287-302.
.	Johnathan Foote, "Visualizing Music and Audio using Self-Similarity", Proceedings of ACM Multimedia'99, p. 77-80, Orlando, Florida, November 1999.

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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	<p>Marti A. Hearst, "Multi-Paragraph Segmentation of Expository Text", Proceedings of the 32nd Annual Meeting of the Association for Computational Linguistics, 1994.</p> <p>Yee Leung, Jiang She Zhang, Zong Ben Xu, "Clustering by Scale-Space Filtering", IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 22, No. 12, December 2000, p. 1396-1410.</p> <p>Richard F. Lyon, "Speech Recognition in Scale Space", Proceedings of 1984 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), San Diego, March 1984, p. 29.3.1-4.</p> <p>Malcolm Slaney and Dulce Ponceleon, "Hierarchical Segmentation Using Latent Semantic Indexing in Scale Space", Proceedings of the 2001 ICASSP, Salt Lake City, Utah, May 2001.</p> <p>Andrew P. Witkin, "Scale-Space Filtering: A New Approach to Multi-Scale Description", Proceedings of the 1984 ICASSP, San Diego, March 1984, p. 39.A.1.1-4.</p>

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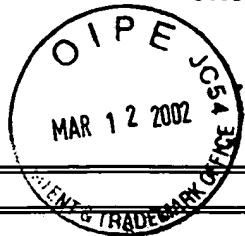
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	<p>M. R. Naphade et al., "A Factor Graph Framework for Semantic Indexing and Retrieval in Video", 0-7695-0695-X/00, 2000, IEEE.</p> <p>M. R. Naphade et al., "Semantic Video Indexing using a probabilistic framework", International Conference on Pattern Recognition (ICPR'00), 1051-4651/00, 2000, IEEE.</p> <p>Anni Coden et al., "Multi-Search of Video Segments Indexed by Time-Aligned Annotations of Video Content", IBM Research Disclosure 03-2000, n431191, p. 603.</p> <p>Malcolm Slaney and Dulce Ponceleon, "Hierarchical Segmentation: Finding Changes in a Text Signal", Proceedings of the SIAM Text Mining 2001 Workshop, Chicago IL, April 7, 2001, p. 6-13.</p>

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	<p>Manmathma, R. and Srimal, N., "Scale Space Technique for Word Segmentation in Handwritten Documents", Scale-Space Theories in Computer Vision, 2nd International Conference, Scale-Space '99, Proceedings, p. 22-33, 1999.</p> <p>Miller, N.E., Wong, P.C., Brewster, M. and Foote, H.P., "TOPIC ISLANDS(TM) - A Wavelet-Based Text Visualization System", in Ebert D., Hagan, H., and Rushmeier, H. (eds), Proceedings of IEEE Visualization '98, p. 189-196, New York, NY, Oct. 18-23, 1998, ACM Press, also available at multimedia.pnl.gov:2080/topicography/vis98paper.pdf</p> <p>S. Srinivasan et al., "What is in that video anyway? : In Search of Better Browsing", Proceedings, IEEE International Conference on Multimedia Computing and Systems, p. 388-393, Florence, Italy, June 7-11, 1999.</p>

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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	<p>S. Dumais, "Enhancing Performance in Latent Semantic Indexing", Bellcore Technical Report TM-ARH-017527, 1990.</p> <p>S. Dumais, G. Furnas, T. Landauer, S. Deerwester, R. Harshman, "Using Latent Semantic Analysis to Improve Access to Textual Information", Proceedings of Computer Human Interaction '88, 1988.</p> <p>M. Slaney, D. Ponceleon, J. Kaufman, "Multimedia Edges: Finding Hierarchy in all Dimensions", Proceedings of 9th ACM International Conference in Multimedia, Ottawa, Ontario, Sept. 30 - Oct. 5, 2001.</p> <p>M. Slaney, D. Ponceleon, J. Kaufman, "Temporal Events in All Dimensions and Scales", Proceedings of the IEEE Workshop on Detection and Recognition of Events in Video, July 8, 2001, Vancouver Canada.</p> <p></p> <p></p> <p></p> <p></p>
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